NOTES:

1) THE COOLANT CIRCUIT WILL BE FILLED WITH A 50% ETHELYNE GLYCOL / 50% DISTILLED WATER MIXTURE.

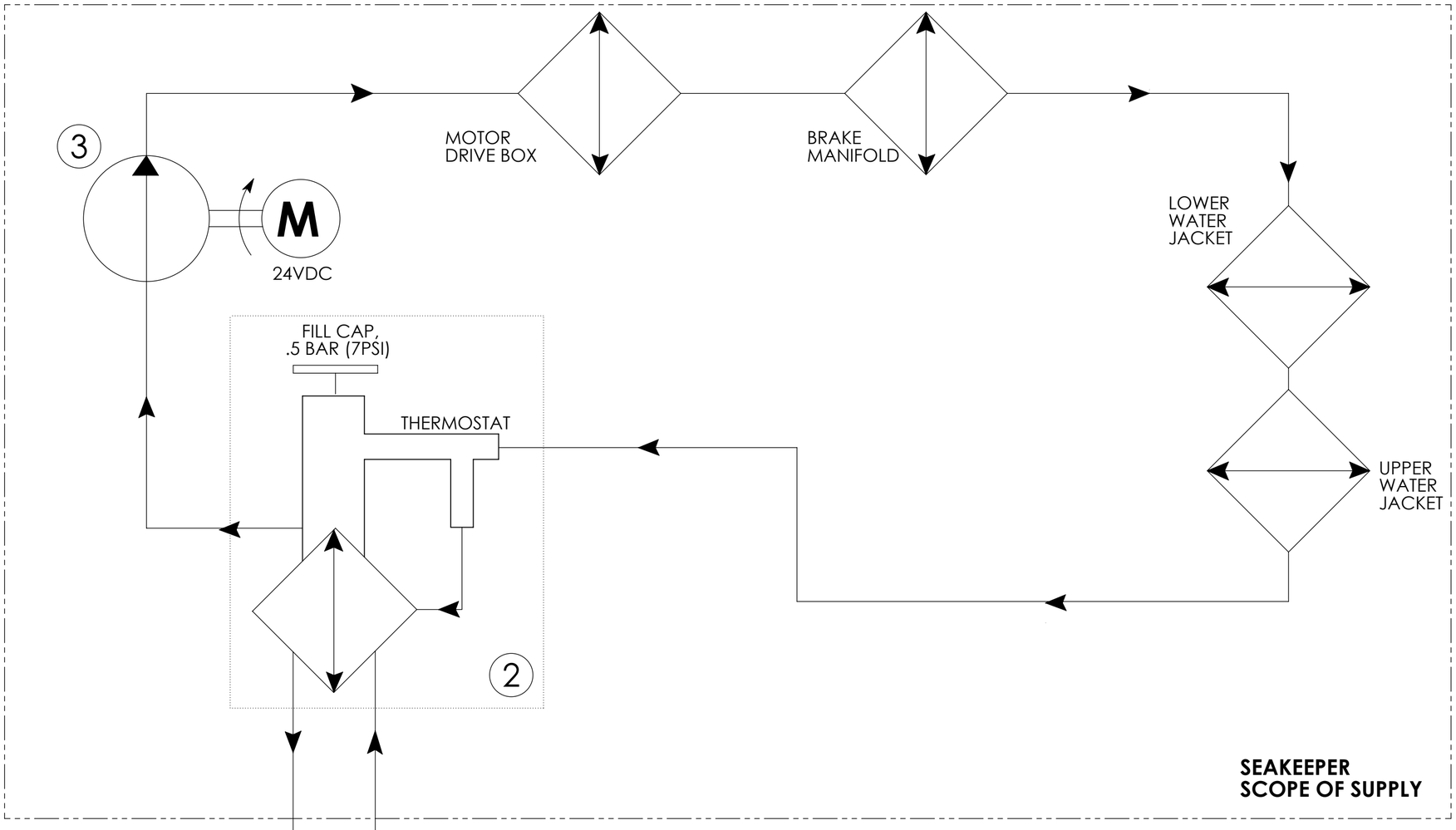
2) SEA WATER FLOW REQUIREMENT THROUGH HEAT EXCHANGER IS 4 GPM (15.1 LPM) MINIMUM AND 8 GPM (30.3 LPM) MAXIMUM UNDER **ALL OPERATING CONDITIONS OF THE BOAT.** MAXIMUM SEA WATER PRESSURE TO BE 20 PSI (1.4 BAR). WHEN SIZING SEA WATER PUMP, INSTALLER SHOULD FACTOR IN LOSSES FOR RAW WATER PLUMBING. IN ADDITION TO INITIAL OPERATION AT DOCK, NEW GYRO INSTALLATIONS SHOULD BE CHECKED FOR MINIMUM 4 GPM (15.1 LPM) FLOW WHILE VESSEL IS AT SPEED AND WHEN BACKING DOWN.

3) CONNECTIONS FOR SEA WATER INLET /OUTLET ARE 3/4 INCH (19 mm) DIAMETER HOSE BARBS.

4) IF USING POWER FROM GYRO TO OPERATE SEAWATER PUMP, PUMP SHOULD BE 220VAC AND DRAW 5 AMPS MAX .

5) IF SEA WATER FLOW RATE FROM DEDICATED PUMP OR CENTRAL SYSTEM IS HIGHER THAN MAXIMUM RECOMMENDED VALUE, AN APPROPRIATE RESTRICTOR VALVE SHOULD BE INSTALLED BETWEEN THE PUMP AND THE HEAT EXCHANGER TO DECREASE THE FLOW RATE.

REVISIONS					
REV.	ECN NO.	ZONE	DESCRIPTION	DATE	APPROVED
1			INITIAL RELEASE	10/28/2014	WED
2	467		1. ADDED 12HD TO TITLE BLOCK. 2. CHANGED COOLANT PUMP P/N, WAS 20158.	23NOV2016	BRD



ITEM	SEAKEEPER PART NO.	DESCRIPTION	SUPPLIER
5	-	FLOW RESTRICTION VALVE	BUILDER
4	-	SEA WATER FLOW METER	BUILDER
3	40435	COOLANT CIRCULATION PUMP	SEAKEEPER
2	40404	HEAT EXCHANGER W/INTEGRAL COOLANT RESERVOIR AND THERMOSTAT	SEAKEEPER
1	–	SEA WATER PUMP, SEE NOTE 2	BUILDER

SEAKEEPER
Seakeeper Inc. 44425 Pecan Court, Suite 151 California, MD 20619

WEIGHT - LBS :

MATERIAL:

DRAWN: SAC DATE: 28OCT14

ENG APPR: WED DATE: 28OCT14

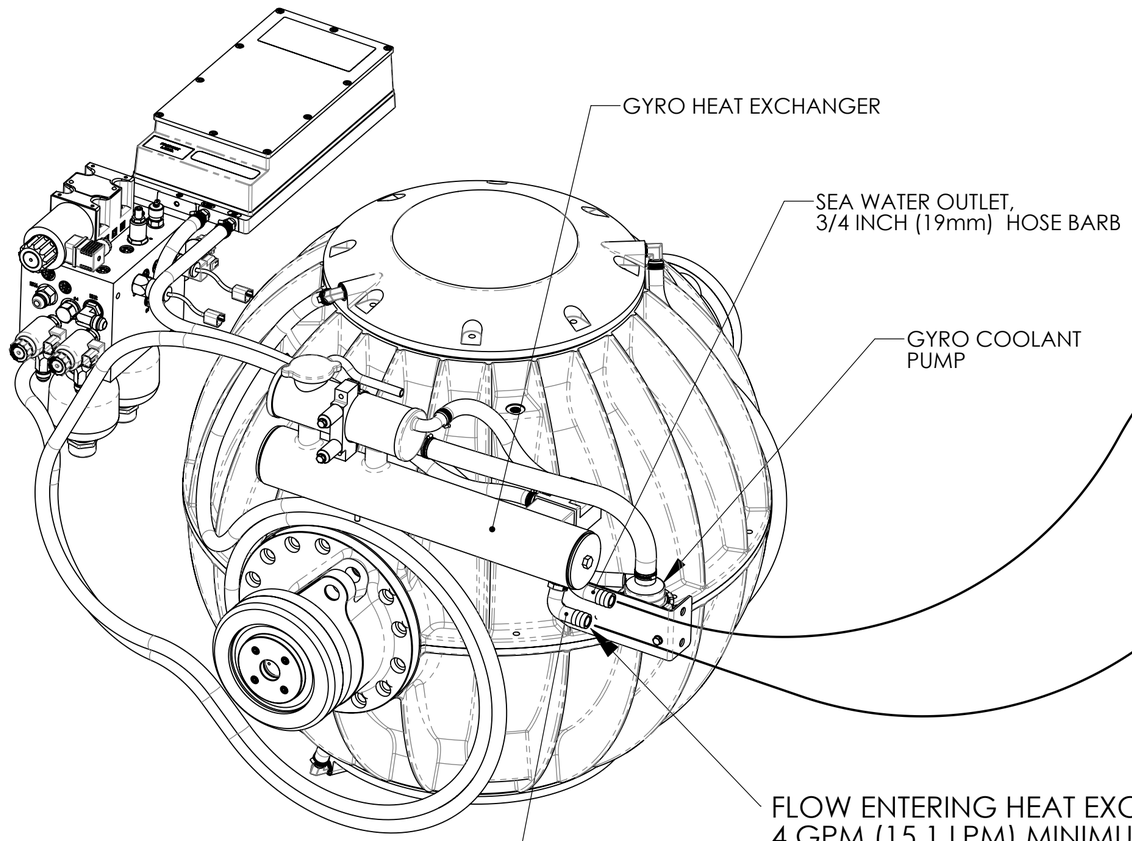
PROD APPR: DATE:

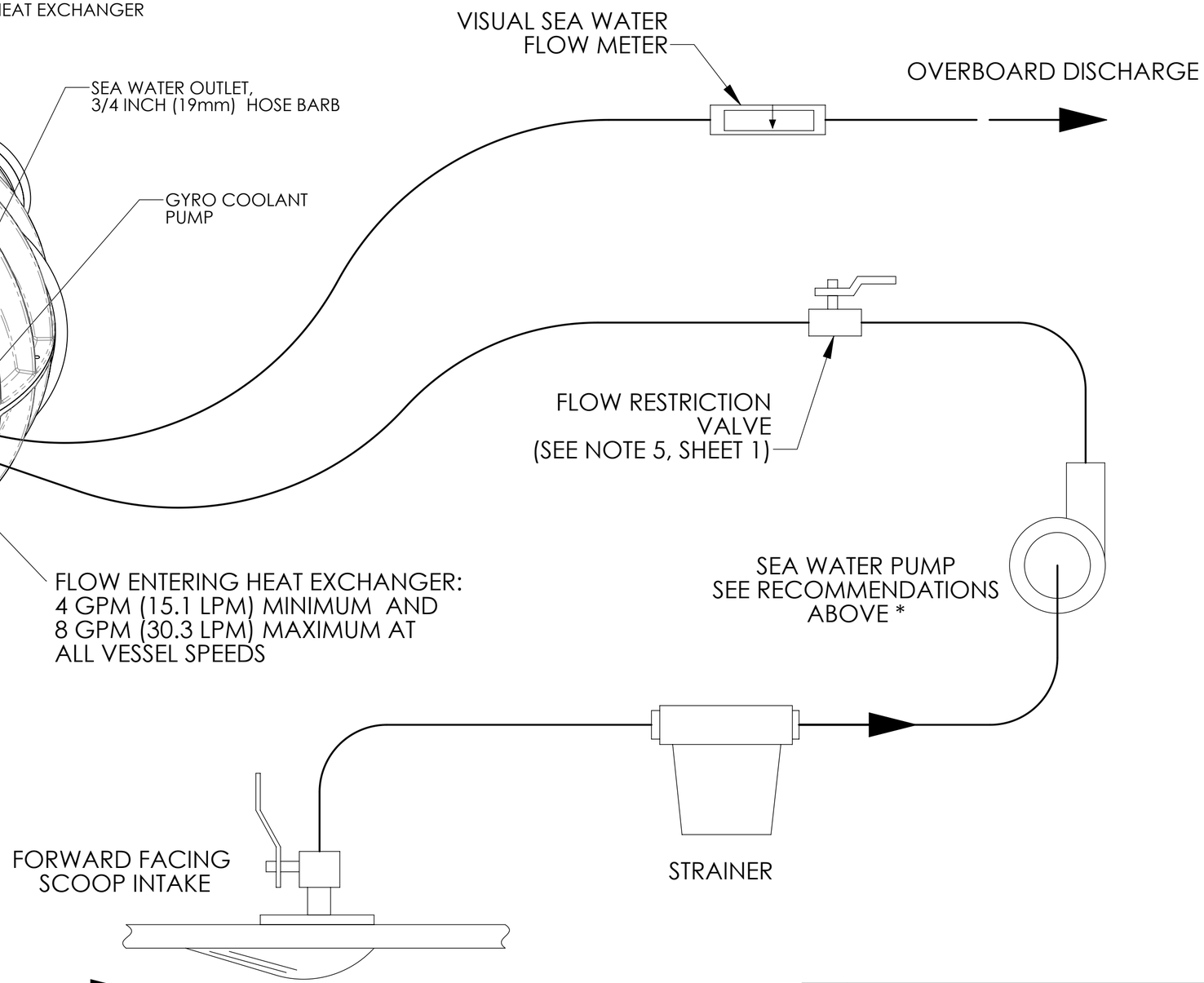
NAME:
SEAKEEPER 16 / 12HD GYRO
COOLING WATER SCHEMATIC

DWG NUMBER **90305** REV. NO. **2** SHEET NO. 1 OF 2

GENERAL RECOMMENDATIONS FOR GYRO COOLING CIRCUIT:

* SEAKEEPER RECOMMENDS A CONTINUOUS DUTY CENTRIFUGAL STYLE PUMP FOR THIS APPLICATION.
* A SELF PRIMING PUMP IS NOT A REQUIREMENT IF THE LOCATION OF THE INSTALLED PUMP IS BELOW THE VESSEL WATERLINE.
* SEA WATER PUMP SHOULD BE APPROPRIATELY SIZED TO ACCOUNT FOR PLUMBING LOSSES BETWEEN PICK-UP AND OVERBOARD DISCHARGE.
* THE PUMP MUST NOT BE AT A LOCAL HIGH POINT THAT CAN TRAP AIR AND PREVENT PROPER OPERATION.
* THE DISCHARGE HOSE OF THE PUMP SHOULD BE ROUTED CONTINUOUSLY UPHILL AS MUCH AS PRACTICAL TO ALLOW PUMP TO MAINTAIN PRIME SHOULD A SMALL AMOUNT OF AIR ENTER THE PLUMBING.
* SEA WATER PUMP SHOULD BE RATED FOR SAME MAXIMUM AMBIENT AIR TEMPERATURE (60°C) AS GYRO.
* FOR MULTIPLE GYRO INSTALLATIONS, ONE SEA WATER PUMP PER INSTALLED GYRO IS RECOMMENDED.
* SEA WATER SCOOP INTAKE SHOULD FACE FORWARD AND SHOULD NOT BE LOCATED NEAR PROPELLERS OR BEHIND HULL PROTRUSIONS THAT WILL DISTURB FLOW.
* IF SEA WATER COOLING WATER TO GYRO IS PROVIDED FROM A MULTI-PURPOSE PUMP/CIRCUIT , AN AUTOMATIC SHUT-OFF VALVE SHOULD BE INSTALLED TO PREVENT FLOW THROUGH GYRO HEAT EXCHANGER WHEN GYRO IS NOT IN USE.
* IF MEASURED FLOW FROM DEDICATED OR CENTRAL SEA WATER PUMP IS ABOVE RECOMMENDED LIMITS, A RESTRICTOR VALVE SHOULD BE INSTALLED BETWEEN PUMP AND GYRO HEAT EXCHANGER TO LIMIT FLOW RATE AND EXTEND LIFE OF THE HEAT EXCHANGER.





FLOW ENTERING HEAT EXCHANGER:
4 GPM (15.1 LPM) MINIMUM AND
8 GPM (30.3 LPM) MAXIMUM AT
ALL VESSEL SPEEDS

SIZE	DWG. NO.	REV
C	90305	2
SCALE: 1:10	WEIGHT: ---	SHEET 2